SKRIPSI

MANIAH

UJI TOKSISITAS AKUT DAN SUBKRONIS PRODUK EKSTRAK MENIRAN (*Phyllanthus niruri* Linn.) TERSTANDAR PADA GINJAL TIKUS PUTIH (*Rattus norvegicus*)

FAKULTAS FARMASI UNIVERSITAS AIRLANGGA
BAGIAN BIOLOGI FARMASI
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2003

Lembar Pengesahan

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Oleh

MANIAH
NIM : 059812074

DISETUJUI OLEH :

Pembimbing Utama	Pembimbing Serta
Dr. Wahyo Dyatmiko, Apt	**Dr. Suprapto Maat, MS., Apt**
NIP. 130541815	**NIP. 080030365**

ABSTRACT

ACUTE AND SUBCRONIC TOXICITY TEST IN A STANDARDIZED PRODUCT OF PHYLLANTHUS NIRURI L. TO THE KIDNEY OF RATS

Subcronic and acute toxicity test in a standardized product of *Phyllantus niruri* that use creatinin, blood urea nitrogen value also kidney histopatology changed as a parameter has been done on this research.

On acute toxicity test use mice as an animal tester, in the other hand subcronic test use 5 groups of rats as animal tester. We usually give oral preparation in acute toxicity with dose 3,41mg flavonoid/20g mencit and an utilization die animal tester is done after 24 hours start from oral preparation. Subcronic test is done for 2 months and each group is given dose 1(0,125mg flavonoid/200g rat), dose 2 (0,25mg flavonoid /200g rat), dose 3 (0,375mg flavonoid /200 g rat), dose 4 (0,5mg flavonoid /200g rat). After that we take a sample of blood throug intracardial and the kidney for analisys. Analisys for blood urea nitrogen and creatinin value use completely randomized design, and analysis of histopatology is used kruskal wallis test and continue with Mann-Whitney test. The result of acute toxicity test is the standardized product extract of *Phyllanthus niruri* relatif not harmful, analisys result from blood urea nitrogen and creatinin there is no differences between control group and test group.

***Keywords** : Standardized Extract product of Phyllanthus niruri, Creatinin, Blood Urea Nitrogen.*

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YANTI WIJAYA

PENENTUAN KADAR Cu, Mn, Zn, DAN Fe DALAM AMPAS TAHU DENGAN METODE SPEKTROFOTOMETRI ABSORPSI ATOM

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2003

Oleh :

YANTI WIJAYA

NIM : 059912200

Skripsi telah disetujui
tanggal 1 Agustus 2003:

Pembimbing Utama

Prof. Dr. Amirudin Prawita, Apt.
NIP. 130 541 813

Pembimbing Serta

Dra. Asri Darmawati, MS. Apt.
NIP. 131 474 956

ABSTRACT

The determination of the Cu, Mn, Zn, and Fe in the refuse of tofu by Atomic Absorption Spectrophotometry (AAS) has been done. The concentration of Cu, Mn, Zn, and Fe in sample from four factories were determined after sample preparation by dry ashing procedure (500^0C for 8 hours).

The result of method validation i.e. accuracy, precision, Limit of Detection , Limit of Quantitation , and linearity met the requirement. The Cu, Mn, Zn, and Fe recoveries based on fortified procedure were (101,5 ± 7,0)%, (96,67 ± 4,28)%, (95,82 ± 4,44)%, (92,05 ± 4,95)%, respectively. The precision of Cu, Mn, Zn, and Fe were 6,87%; 4,38%; 4,63%; 5,38%, respectively.

This showed that, the concentration of Cu in four sample were 4,737µg/g; 4,350µg/g 4,807µg/g; 6,458µg/g, respectively. The concentration of Mn in four sample were 90,08µg/g;98,74µg/g; 53,00µg/g; 62,91µg/g, respectively. The concentration of Zn in four sample were 24,31µg/g; 21,55µg/g; 19,44µg/g; 27,01µg/g, respectively. And the concentration of Fe in four sample were 109,6µg/g; 502,7µg/g; 72,41µg/g; 351,5µg/g, respectively. The sample moisture contain were 9,28% (A); 7,73% (B); 9,21% (C); and 7,69% (D), respectively.

Keyword : refuse of tofu, Atomic Absorption Spectrophotometry (AAS), dry ashing, copper, manganese, zinc and iron.